

**To:** Zell, Christopher[zell.christopher@epa.gov]; Mann, Laurie[mann.laurie@epa.gov]  
**From:** Cope, Ben  
**Sent:** Wed 12/7/2016 11:18:08 PM  
**Subject:** RE: Budd Inlet

Agree with Laurie, and in a similar vein the email doesn't explain enough for me to understand reasons for averaging scheme. Requires a chat with visual aids like he's included. Thx. -BC

**From:** Zell, Christopher  
**Sent:** Tuesday, December 06, 2016 4:23 PM  
**To:** Mann, Laurie <mann.laurie@epa.gov>; Cope, Ben <Cope.Ben@epa.gov>  
**Subject:** RE: Budd Inlet

Thank you Laurie!! Your guidance is very appreciated and could not agree with your point more  
☺

**From:** Mann, Laurie  
**Sent:** Tuesday, December 06, 2016 12:44 PM  
**To:** Zell, Christopher <zell.christopher@epa.gov>; Cope, Ben <Cope.Ben@epa.gov>  
**Subject:** Re: Budd Inlet

Hi Chris,

I'm going to let you & Ben figure out the vertical averaging scheme.

Transactional email exchanges aren't the ideal way to communicate on TMDL issues, and in my experience they are not typical with Ecology. I suggest we say something like the following - - (and then, perhaps in a phone call, make it clear to Andrew that we would like to switch from email to conversations & meetings).

Andrew,

We enjoyed talking with you and Leanne about the Budd Inlet TMDL. And while we believe we agree with the majority of what you have included in this email, there are complexities that are not captured in the email - - such as assumptions about the levels of reduction; and alternatives to consider if Capitol Lake remains a lake (feel free to insert other / different examples). And as you can well imagine, EPA can't make

advance commitments regarding Agency decisions. We do look forward to talking with you more about this project, and working with you closely in the future.

With your permission, I'd also like to give Andrew a call and talk with him a bit more about the way he is presenting EPA's role on the Deschutes (e.g. our most recent meeting).

We can talk, if you'd like, after the Unit meeting today or tomorrow. Hope you are staying warm!!

lbm

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**From:** Zell, Christopher  
**Sent:** Tuesday, December 6, 2016 8:16 AM  
**To:** Mann, Laurie; Cope, Ben  
**Subject:** FW: Budd Inlet

Laurie and Ben,

Please see Andrew's email below. I have a few questions and requests for each of you.

Laurie – could you please review Andrew's notes and assumptions below...and possibly provide any corrections? I would like us to be clear on what we committed to last week.

Ben and Laurie – what do you think of the vertical averaging scheme?

I can set up a meeting to discuss if you think it best.

Thank you,

Chris

**From:** Kolosseus, Andrew (ECY) [<mailto:AKOL461@ECY.WA.GOV>]  
**Sent:** Tuesday, December 06, 2016 8:11 AM  
**To:** Zell, Christopher <[zell.christopher@epa.gov](mailto:zell.christopher@epa.gov)>; Weiss, Leanne (ECY) <[lewe461@ECY.WA.GOV](mailto:lewe461@ECY.WA.GOV)>  
**Subject:** Budd Inlet

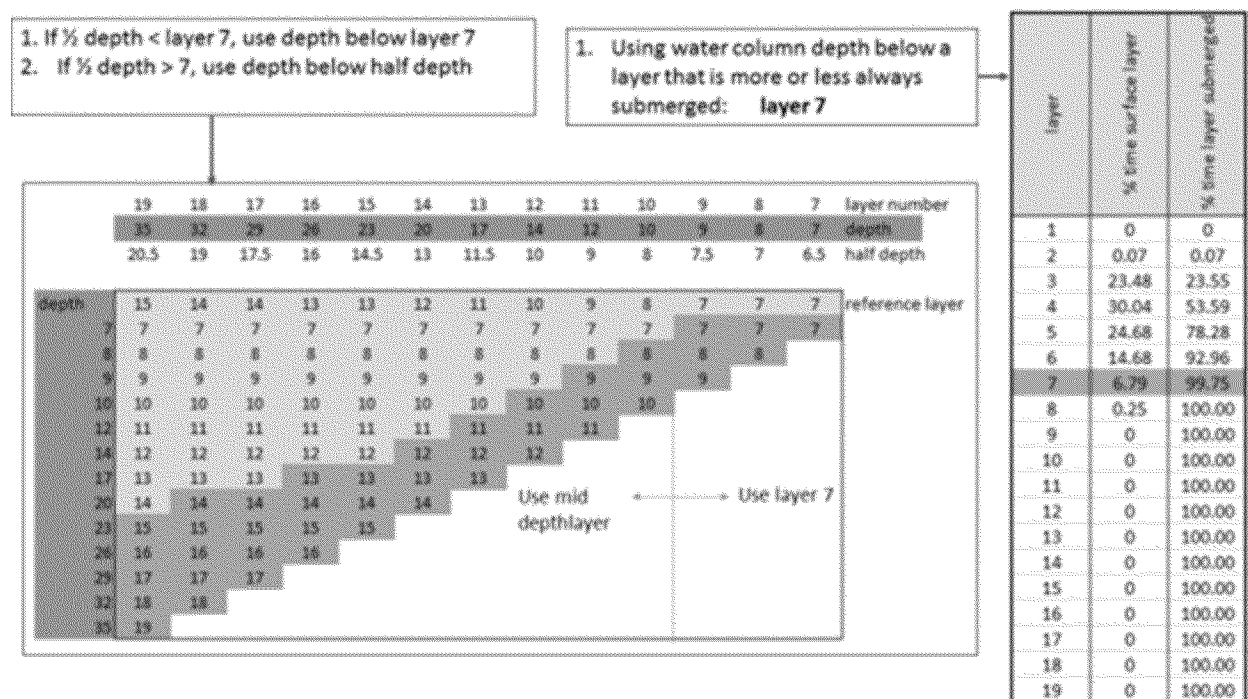
Chris and Leanne:

I made a couple of notes from last week's EPA-Ecology meeting on Budd Inlet / South Puget Sound. I wanted to make sure I heard correctly and that we remember where we ended up. Can you both take a look at this and let me know if this is correct?

1. EPA agreed that a phased TMDL that set an aggregated allocation at the boundary of Budd Inlet (even though we won't be able to tie it to individual WLA at the end of the pipe for WWTPs) was an acceptable use of the Phased TMDL option. We would need to be open about uncertainty and include schedules for everything, including a Puget Sound TMDL. (Note that Ecology would still need to get internal approval before using this approach).
2. EPA understands that there is not a "high" likelihood of solving the capitol lake problem (although there is a good opportunity) and there is no way to meet water quality standards without solving capitol lake problem. If this is the only shortcoming in a future Budd Inlet TMDL, EPA would be able to approve the TMDL.
3. We will have future conversations about (a) downstream standards and (b) aesthetic and other non-aquatic life uses.

And there was a brief mention of vertical averaging on the Puget Sound DO project.

We're already doing this in Budd Inlet. Chris, please take a look at our approach – attached as a slide, below (let me know if it doesn't come through). Let us know asap if you have an issues with this approach. The basic idea is that model layer 7 has water in is 99.75% of the time (i.e. layer 7 is subtidal). Therefore, in areas of the model with 7, 8, or 9 layers we average layers 7 through 9. In deeper waters, we used the mid depth layers. It's the layers in the darker gray in the plot that we averaged. This approach was used for the slides from the November advisory committee meeting update that I sent to you earlier. If you have concerns or questions, we should add this to the future conversations in #3.



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